



APPLICANT(S): ARAZI, Nitzan et al.
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AMENDMENTS TO THE CLAIMS

In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application. Please cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1-6. (Canceled)

7. (Currently Amended) ~~Method according to claim 10, wherein:~~ In a wireless communication system comprising a Base Station connected with a mobile unit, a method of detecting a mobile unit by at least one other Base Station which is waiting for the mobile unit to enter its coverage area, comprising:

transferring to the at least one Base Station waiting for the mobile unit to enter its coverage area timing information identifying a time interval;

from the at least one Base Station waiting for the mobile unit to enter its coverage area, sending at least one PING command to the mobile unit during said time interval;
and

at the Base Station waiting for the mobile unit to enter its coverage area, receiving at least one ECHO reply from the mobile unit,

wherein the mobile unit is a device selected from the group consisting of: telephone handset, standard, cordless telephone handset, cellular telephone handset, personal data device, personal digital assistant (PDA), computer, laptop computer, e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player;

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wherein the PING command comprises data fields selected from the group consisting of a device address for the mobile unit, an identifier for the mobile unit, a message length, and data; and

wherein the ECHO response comprises data fields selected from the group consisting of an identifier for the mobile unit, a message length, and data.

8. ~~(Currently Amended) Method, according to claim 10, further comprising:~~ In a wireless communication system comprising a Base Station connected with a mobile unit, a method of detecting a mobile unit by at least one other Base Station which is waiting for the mobile unit to enter its coverage area, comprising:

transferring to the at least one Base Station waiting for the mobile unit to enter its coverage area timing information identifying a time interval;

from the at least one Base Station waiting for the mobile unit to enter its coverage area, sending at least one PING command to the mobile unit during said time interval;

at the Base Station waiting for the mobile unit to enter its coverage area, receiving at least one ECHO reply from the mobile unit; and

at each Base Station, maintaining information about connections between mobile units and neighboring Base Stations, wherein the information is selected from the group consisting of connection number, handset ID, Base Station ID, handoff status and handset detection status;

wherein the mobile unit is a device selected from the group consisting of: telephone handset, standard, cordless telephone handset, cellular telephone handset, personal data device, personal digital assistant (FDA), computer, laptop computer, e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central

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remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player.

9. (Original) Method, according to claim 8, wherein the handset detection status information comprises information selected from the group consisting of number of successful PING, time of last successful PING, quality measurements for successful PINGs.

10. (Canceled)

11. (Currently Amended) ~~Method, according to claim 10, further comprising:~~ In a wireless communication system comprising a Base Station connected with a mobile unit, a method of detecting a mobile unit by at least one other Base Station which is waiting for the mobile unit to enter its coverage area, comprising:

transferring to the at least one Base Station waiting for the mobile unit to enter its coverage area timing information identifying a time interval:

from the at least one Base Station waiting for the mobile unit to enter its coverage area, sending at least one PING command to the mobile unit during said time interval:

at the Base Station waiting for the mobile unit to enter its coverage area, receiving at least one ECHO reply from the mobile unit;

providing communication links between the Base Stations, wherein the communication links between the Base Stations are selected from the group consisting of 1 ff links and land lines; and

transferring connection status information and rough synchronization information between the Base Stations over the communications links;

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wherein the mobile unit is a device selected from the group consisting of: telephone handset, standard, cordless telephone handset, cellular telephone handset, personal data device, personal digital assistant (FDA), computer, laptop computer, e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player.

12-15. (Canceled)

16. (Currently Amended) ~~Method, according to claim 19, wherein:~~ In a wireless communication system comprising a Base Station connected with a mobile unit, a method of detecting a mobile unit by at least one Base Station which is waiting for the mobile unit to enter its coverage area, comprising:

from the Base Station connected with the mobile unit, sending at least one PING command to the mobile unit during a time interval:

transferring to the Base Station waiting for the mobile unit to enter its coverage area timing information identifying said time interval: and

based on said timing information, at the Base Station waiting for the mobile unit to enter its coverage area, receiving an ECHO reply from the mobile unit in response to said PING command:

wherein the PING command comprises data fields selected from the group consisting of a device address for the mobile unit, an identifier for the mobile unit, a message length, and data;

wherein the ECHO response comprises data fields selected from the group consisting of an identifier for the mobile unit, a message length, and data: and

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wherein the mobile unit is a device selected from the group consisting of: telephone handset, standard cordless telephone handset, cellular telephone handset, personal data device, personal digital assistant (PDA), computer, laptop computer, e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player.

17. (Currently Amended) ~~Method according to claim 19, further comprising:~~ In a wireless communication system comprising a Base Station connected with a mobile unit, a method of detecting a mobile unit by at least one Base Station which is waiting for the mobile unit to enter its coverage area, comprising:

from the Base Station connected with the mobile unit, sending at least one PING command to the mobile unit during a time interval;

transferring to the Base Station waiting for the mobile unit to enter its coverage area timing information identifying said time interval;

based on said timing information, at the Base Station waiting for the mobile unit to enter its coverage area, receiving an ECHO reply from the mobile unit in response to said PING command; and

at each Base Station, maintaining information about connections between mobile units and neighboring Base Stations,

wherein the information is selected from group consisting of: connection number, handset ID, Base Station ID, handoff status and handset detection status;

wherein the mobile unit is a device selected from the group consisting of: telephone handset, standard cordless telephone handset, cellular telephone handset, personal

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data device, personal digital assistant (PDA), computer, laptop computer, e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player.

18. (Previously Presented) Method, according to claim 17, wherein the handset detection status information comprises information selected from the group consisting of number of successful PING, time of last successful PING, quality measurements for successful PINGs;

19. (Canceled)

20. (Currently Amended) ~~Method, according to claim 19, further comprising:~~ In a wireless communication system comprising a Base Station connected with a mobile unit, a method of detecting a mobile unit by at least one Base Station which is waiting for the mobile unit to enter its coverage area, comprising:

from the Base Station connected with the mobile unit, sending at least one PING command to the mobile unit during a time interval;

transferring to the Base Station waiting for the mobile unit to enter its coverage area timing information identifying said time interval;

based on said timing information, at the Base Station waiting for the mobile unit to enter its coverage area, receiving an ECHO reply from the mobile unit in response to said PING command;

providing communication links between the Base Stations, wherein the communication links between the Base Stations are selected from the group consisting of RF links and land lines; and

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transferring connection status information and rough synchronization information between the Base Stations over the communications links;

wherein the mobile unit is a device selected from the group consisting of: telephone handset, standard cordless telephone handset, cellular telephone handset, personal data device, personal digital assistant (PDA), computer, laptop computer, e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player.

21-29. (Canceled)

30. (Currently Amended) ~~The wireless communication system of claim 33, A~~
wireless communication system comprising:

a first base station able to communicate with a mobile unit, and

a second base station waiting for the mobile unit to enter its coverage area, said second base station able to receive timing information identifying a timing of a time interval yielded by said first base station, to send at least one PING command to said mobile unit during said time interval, and to receive at least one ECHO reply from said mobile unit.

wherein the mobile unit is a device selected from the group consisting of a telephone handset, a standard cordless telephone handset, a cellular telephone handset, a personal data device, a personal digital assistant (PDA), a computer, a laptop computer, an e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player.

wherein said PING command comprises data fields selected from the group consisting

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of a device address for the mobile unit, an identifier for the mobile unit, a message length, and data; and wherein the ECHO response comprises data fields selected from the group consisting of an identifier for the mobile unit, a message length, and data.

31. (Currently Amended) ~~The wireless communication system of claim 33,~~ A wireless communication system comprising:

a first base station able to communicate with a mobile unit, and

a second base station waiting for the mobile unit to enter its coverage area, said second base station able to receive timing information identifying a timing of a time interval yielded by said first base station, to send at least one PING command to said mobile unit during said time interval, and to receive at least one ECHO reply from said mobile unit.

wherein the mobile unit is a device selected from the group consisting of a telephone handset, a standard cordless telephone handset, a cellular telephone handset, a personal data device, a personal digital assistant (PDA), a computer, a laptop computer, an e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player.

wherein each one of said first and second base stations is able to maintain information about connections between mobile units and neighboring Base Stations, wherein the information is selected from the group consisting of connection number, handset ID, Base Station ID, handoff status and handset detection status.

32. (Previously Presented) The wireless communication system of claim 31, wherein the handset detection status information comprises information selected from the group consisting of number of successful PING, time of last successful PING, quality

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measurements for successful PINGs.

33. (Canceled)

34. (Currently Amended) ~~The wireless communication system of claim 33 comprising~~
A wireless communication system comprising:

a first base station able to communicate with a mobile unit;

a second base station waiting for the mobile unit to enter its coverage area, said second base station able to receive timing information identifying a timing of a time interval yielded by said first base station, to send at least one PING command to said mobile unit during said time interval, and to receive at least one ECHO reply from said mobile unit; and

one or more communication links connecting said first and second base stations, said first and second base stations are able to transfer connection status information and rough synchronization information over said communications links, wherein the communication links are selected from the group consisting of RF links and land lines;

wherein the mobile unit is a device selected from the group consisting of a telephone handset, a standard cordless telephone handset, a cellular telephone handset, a personal data device, a personal digital assistant (PDA), a computer, a laptop computer, an e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player.

35-37. (Canceled)

38. (Currently Amended) ~~The wireless communication system of claim 41,~~ A wireless communication system comprising:

a first base station connected to a mobile unit, and able to send at least one PING command to the mobile unit during a time interval; and

a second base station waiting for the mobile unit to enter its coverage area, said second base station able to receive timing information identifying said time interval, and based on said timing information, to receive from the mobile unit an ECHO reply in response to said PING command;

wherein the mobile unit is a device selected from the group consisting of a telephone handset, a standard cordless telephone handset, a cellular telephone handset, a personal data device, a personal digital assistant (PDA), a computer, a laptop computer, an e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player;

wherein said PING command comprises data fields selected from the group consisting of a device address for the mobile unit, an identifier for the mobile unit, a message length, and data; and

wherein the ECHO response comprises data fields selected from the group consisting of an identifier for the mobile unit, a message length, and data.

39. (Currently Amended) ~~The wireless communication system of claim 41,~~ A wireless communication system comprising:

a first base station connected to a mobile unit, and able to send at least one PING command to the mobile unit during a time interval; and

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a second base station waiting for the mobile unit to enter its coverage area, said second base station able to receive timing information identifying said time interval, and based on said timing information, to receive from the mobile unit an ECHO reply in response to said PING command;

wherein the mobile unit is a device selected from the group consisting of a telephone handset, a standard cordless telephone handset, a cellular telephone handset, a personal data device, a personal digital assistant (PDA), a computer, a laptop computer, an e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player;

wherein each one of said first and second base stations is able to maintain information about connections between mobile units and neighboring Base Stations, wherein the information is selected from the group consisting of connection number, handset ID, Base Station ID, handoff status and handset detection status.

40. (Previously Presented) The wireless communication system of claim 39, wherein the handset detection status information comprises information selected from the group consisting of number of successful PING, time of last successful PING, quality measurements for successful PINGs.

41. (Canceled)

42. (Currently Amended) ~~The wireless communication system of claim 41 comprising~~ A wireless communication system comprising:

a first base station connected to a mobile unit, and able to send at least one PING command to the mobile unit during a time interval; and

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a second base station waiting for the mobile unit to enter its coverage area, said second base station able to receive timing information identifying said time interval, and based on said timing information, to receive from the mobile unit an ECHO reply in response to said PING command:

one or more communication links connecting said first and second base stations, said first and second base station are able to transfer connection status information and rough synchronization information over said communications links, wherein the communication links are selected from the group consisting of RF links and land lines;

wherein the mobile unit is a device selected from the group consisting of a telephone handset, a standard cordless telephone handset, a cellular telephone handset, a personal data device, a personal digital assistant (PDA), a computer, a laptop computer, an e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player.